1989 ANNUAL INDEXES

Textile Research Journal

Volume 59

AUTHOR AND TITLE INDEX, pp. 775–781

MONTH	PAGES
January	1–60
February	61–122
March	123–184
April	185–246
May	247–308
June	309–370

SUBJECT INDEX, pp. 781–790

MONTH	PAGES
July	371–432
August	433–494
September	495–556
October	557–634
November	635–712
December	713–790

AUTHOR AND TITLE INDEX

Aggarwal, S. K. A Model to Estimate the Breaking Elongation of High Twist Ring Spun Cotton Yarns Part I: Derivation of the Model for Yarns from Single Cotton Varieties 691
Part II: Applicability to Yarns from Mixtures of Cottons 717
Alagirusamy, R. Characterization of the Structural Integrity of Air-Jet Textured Yarns (*Sengupta, Kothari*) 758
Alberghina, Gaetano Influence of pH and Ionic Strength on Equilibrium Sorption of Cationic Dyes by Acrylic Fibers (*Amato, Fisichella, Zollinger*) 264
Alger, K. W. Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Bertoniere, Duffin, Kim, Dubuque, Collins, Xie*) 484
Amato, Maria Emanuela Influence of pH and Ionic Strength on Equilibrium Sorption of Cationic Dyes by Acrylic Fibers (*Alberghina, Fisichella, Zollinger*) 264
Amirbayat, J. Change in Surface Properties of Fabrics During Wear (*Cooke*) 469
Anantha Krishnan, S. R. Effect of Chemical Treatment on Density and Crystallinity of Jute Fibers (*Varma, Krishnamoorthy*) 368
Andersson, C.-H. Comments on "Effects of Strain Rate and Gauge Length on the Failure of Ultra-High Strength Polyethylene Fibers" 555
Arifoglu, Mustafa Effect of Urea on Bleaching of Wool with Hydrogen Peroxide Under Alkaline and Acidic Conditions (*Marmer, Carr*) 425
Arns, W. Quantitative Fiber Mixture Analysis by Scanning Electron Microscopy Part II: Blends of Wool with Angora Rabbit Hair (*Wortmann, Wortmann*) 73

Bailey, A. I. Theory and Practice of Localized Fabric Deformations (*Motamedi, Briscoe, Tabor*) 160
Bajaj, Pushpa Influence of Spinning Dope Additives and Spin Bath Temperature on the Structure and Physical Properties of Acrylic Fibers (*Kumari Munukutla, Vaidya, Gupta*) 601
Physicomechanical Properties of Fibers from Blends of Acrylonitrile Terpolymer and Its Hydrolyzed Products (*Kumari*) 191
Balasubramanian, P. Relation Between Maturity and Micronaire 634
Barella, A. Experimental Values of Yarn Hairiness Measured by the Zweigle G 565 (*Egio, Castro, Gelabert*) 710
Friction Spun Yarns Versus Ring and Rotor Spun Yarns: Resistance to Abrasion and Repeated Extensions (*Manich*) 767
Influence of Cotton Fiber Properties on Yarn Hairiness (*Manich*) 632
Batra, Subhash K. An Integrated Approach to Dynamic Analysis of the Ring Spinning Process Part I: Without Air Drag and Coriolis Acceleration (*Ghosh, Zeidman*) 309
An Integrated Approach to Dynamic Analysis of the Ring Spinning Process Part II: With Air Drag (*Ghosh, Zeidman*) 416
Beaton, Paul G. Relationships Between Short Fiber Content and HVI Fiber Length Uniformity (*Ramey*) 101
Behera, B. K. High Pressure Squeezing in Sizing: Performance of Cotton Yarn (*Hari, Prakash, Dhawan*) 597
Bertoniere, Noelie R. A Comparison of the Response of Cotton and Milkweed to Selected Swelling and Crosslinking Treatments (*Kottes Andrews, Kimmel, Hebert*) 675
Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Alger, Duffin, Kim, Dubuque, Collins, Xie*) 484
Effect of Scouring/Bleaching, Caustic Mercerization, and Liquid Ammonia Treatment on the Pore Structure of Cotton Textile Fibers (*King*) 114
Pore Structure and Dyeability of Cotton Crosslinked with DMDHEU and with DHDMI (*King*) 608
Briscoe, B. J. Theory and Practice of Localized Fabric Deformations (*Motamedi, Bailey, Tabor*) 160
Brooks, J. H. Effect of Lubrication on Tensile, Frictional, and Weaving Properties of Sirospun Wool Yarn (*Das, Smith*) 382
Broughton, Roy B., Jr. Diagnostic Procedures for Multicollinearity Between HVI Cotton Fiber Properties (*El Mogahzy*) 440
Burd, E. Z. Production of Regenerated Cellulose Fibers Without Carbon Disulfide (*Chegolya, Grinshpan*) ... 501

Carnaby, Garth A. Theory of the Compression Hysteresis of Fibrous Assemblies (*Pan*) 275
Theory of the Shear Deformation of Fibrous Assemblies (*Pan*) 285

Carr, Christopher M. Effect of Solvent Treatments on the Handle of Wool Fabrics (*Weedall*) 45
Effect of Urea on Bleaching of Wool with Hydrogen Peroxide Under Alkaline and Acidic Conditions (*Arifoglu, Marmer*) 425
Castro, L. Experimental Values of Yarn Hairiness Measured by the Zweigle G 565 (*Barella, Egio, Gelabert*) 710
Chandran, K. A Critical Evaluation of the Relationship Between Fiber Quality Parameters and Hairiness of Cotton Yarns (*Viswanathan, Munshi, Ukidve*) 707
Cheek, Lenore Mercerization of Ramie: Comparisons with Flax and Cotton Part I: Effects on Physical, Mechanical, and Accessibility Characteristics (*Roussel*) 478
Part II: Effects on Dyeing and Behavior (*Roussel*) 541
Chegolya, A. S. Production of Regenerated Cellulose Fibers Without Carbon Disulfide (*Grinshpan, Burd*) 501
Chen, Cheng-Chi Crosslinking of Cotton Cellulose in the Presence of Mixed Catalysts 464
Kinetics of the Crosslinking Reaction of Cotton Catalyzed with Mixtures of Aluminum Salts and Tartaric Acid 337
Collins, M. J. Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Bertoniere, Alger, Duffin, Kim, Dubuque, Xie*) 484
Comelles, F. Physicochemical Behavior of Hercosett/Anionic Surfactant Dispersion and Application on Untreated Wool to Impart Shrinkproofing (*de la Maza, Parra, Sánchez Leal*) 173
Physicochemical Properties of Hercosett/Optical Brightener Agent Dispersions Applied to Untreated Wool for Shrinkproofing (*de la Maza, Parra, Sánchez Leal*) .. 687
Cook, J. R. Sorption of Synthappret BAP by Wool and Its Effect on Abrasion Resistance (*Fleischfresser, Leeder, Rippon*) 754
Cooke, W. D. Change in Surface Properties of Fabrics During Wear (*Amirbayat*) 469

Das, J. Fenton's Reagent Initiated Graft Copolymerization of Methyl Methacrylate onto Jute Fibers (*Mohanty, Singh*) 525
Das, U. K. Effect of Lubrication on Tensile, Frictional, and Weaving Properties of Sirospun Wool Yarn (*Brooks, Smith*) 382
de Araujo Spirality of Knitted Fabrics Part I: The Nature of Spirality (*Smith*) 247
Part II: The Effect of Yarn Spinning Technology on Spirality (*Smith*) 350
de Jong, E. J. Hydrodynamics in Packed Textile Beds (*van den Brekel*) 433
de la Maza, A. Physicochemical Behavior of Hercosett/Anionic Surfactant Dispersion and Application on Untreated Wool to Impart Shrinkproofing (*Parra, Sánchez Leal, Comelles*) 173
Physicochemical Properties of Hercosett/Optical Brightener Agent Dispersions Applied to Untreated Wool for Shrinkproofing (*Parra, Sánchez Leal, Comelles*) 687
Demir, A. Simplified Instability Measurement Devices for Air-Jet Textured Yarns 492
Dhawan, K. High Pressure Squeezing in Sizing: Performance of Cotton Yarn (*Hari, Behera, Prakash*) 597
Dhingra, R. C. Measuring and Interpreting Low-Stress Fabric Mechanical and Surface Properties Part II: Application to Finishing, Drycleaning, and Photodegradation of Wool Fabrics (*Liu, Postle*) 357
Part III: Optimization of Fabric Properties for Men's Suiting Materials (*Postle*) 448
Dubuque, L. K. Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Bertoniere, Alger, Duffin, Kim, Collins, Xie*) 484
Duffin, J. L. Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Bertoniere, Alger, Kim, Dubuque, Collins, Xie*) 484
Duffy-Morris, Kathleen T. Electrical Stimulation of Fabric Filtration Part VII: Studies of Simplified Electrode Design (*Lamb*) 257
Dutta, A. Estimating the Variability of PET Spun Fiber Properties Using Computer Simulation 411

Egio, Alicia Experimental Values of Yarn Hairiness Measured by the Zweigle G 565 (*Barella, Castro, Gelabert*) ... 710
El-Farahaty, K. A. Optical Anisotropy in Mohair Fibers (*Fouda, El-Tonsy*) 506
Elling, L. Characterization of Proteinaceous Contaminants Extracted from Scoured Wool and Wool Top (*Zahn*) 460
Ellison, M. S. High Energy Radiation Effects on the Thermal Properties and Density of Nylon 6 Fibers (*Zeronian, Xie*) 657
El Mogahzy, Yehia E. Diagnostic Procedures for Multicollinearity Between HVI Cotton Fiber Properties (*Broughton*) 440
El-Tonsy, M. M. Optical Anisotropy in Mohair Fibers (*Fouda, El-Farahaty*) 506
Evans, David J. A Method for Determining the Penetration of Reducing Agents into Wool Using Fluorescence Microscopy 569

Farrell, Harold M., Jr. Pyrolysis Gas Chromatography of Wool Part II: Detection and Quantitation of Tryptophan in Wool and Simple Proteins (*Marmer, Magidman*) 616
Fateley, William G. Studies of Foam Finished Cotton Fabrics Using FT-IR Photoacoustic Spectroscopy (*Yang, Perenich*) 562
Feughelman, M. A Note on the Water-Impenetrable Component of α-Keratin Fibers 739
Fisichella, Salvatore Influence of pH and Ionic Strength on Equilibrium Sorption of Cationic Dyes by Acrylic Fibers (*Alberghina, Amato, Zollinger*) 264
Fleischfresser, B. E. Sorption of Synthappret BAP by Wool and Its Effect on Abrasion Resistance (*Cook, Leeder, Rippon*) 754
Fouda, I. M. Optical Anisotropy in Mohair Fibers (*El-Farahaty, El-Tonsy*) 506
Freeland, Graeme N. Single Thread Shrinkage of Polymer Treated Wool Fabrics (*Guise*) 700
Freeman, H. S. Photolytic Properties of *Ortho*-Substituted 4-[*N,N*-Bis(β-Hydroxyethyl)amino]azobenzenes in Polymer Substrates (*McIntosh*) 343
X-Ray Crystal Structure of the Dyes 2-Nitro-4'-[*N,N*-Bis-(β-Hydroxyethyl)amino]azobenzene and 2-Cyano-4'-[*N,N*-Bis(β-Hydroxyethyl)amino]azobenzene (*McIntosh, Singh*) 389
Friedman, Henry L. Abrasion Studies of Sized Cotton Yarns Before and After Weaving (*Miller, Kepka, Moreau*) 622
Development of Hairiness of Sized Warp Yarns During Flexabrasive Wear (*Zhou, Miller*) 495
Frydrych, I. Frictional Restraints During the Knitting Process (*Zurek, Tyc, Piasecki*) 329
Fukatsu, Kazuhiko Degradation of the Copper(II)-Wool Keratin Complex by Hydrogen Peroxide 405

Gandhi, R. S. Effects of Heat Setting on Tensile and Dye Sorption Characteristics of Anionic Modified PET—A Comparison with Normal PET (*Pal, Mehta*) 734
Gelabert, J. M. Experimental Values of Yarn Hairiness Measured by the Zweigle G 565 (*Barella, Egio, Castro*) .. 710

Ghosh, Tushar K. An Integrated Approach to Dynamic Analysis of the Ring Spinning Process Part I: Without Air Drag and Coriolis Acceleration (*Batra, Zeidman*) 309
Part II: With Air Drag (*Batra, Zeidman*) 416
Gipson, Jack R. Factors Affecting Rotor Spinning of Fine Cotton Yarns (*Steadman, Mehta, Soliman*) 371
Goswami, B. C. Air-Jet Texturing of Cotton-Filament Composite Yarns for Better Apparel Comfort (*Kothari, Sengupta, Srinivasan*) 292
Influence of Interfilament Friction on Structure and Properties of Air Textured Yarns (*Kothari, Sengupta, Rengasamy*) 317
Grady, P. L. A General Purpose Textile Plant Energy Consumption Model (*Mock, Pai, Throneburg*) 177
Grinshpan, D. D. Production of Regenerated Cellulose Fibers Without Carbon Disulfide (*Chegolya, Burd*) 501
Guise, G. Bruce Single Thread Shrinkage of Polymer Treated Wool Fabrics (*Freeland*) 700
Gulrajani, M. L. A Solar Energy Accelerated Process for Combined Desizing, Scouring, and Bleaching of Cotton Fabrics (*Gupta, Gupta*) 217
Gupta, D. C. Influence of Spinning Dope Additives and Spin Bath Temperature on the Structure and Physical Properties of Acrylic Fibers (*Bajaj, Kumari Munukutla, Vaidya*) 601
Gupta, Sanjay A Solar Energy Accelerated Process for Combined Desizing, Scouring, and Bleaching of Cotton Fabrics (*Gulrajani, Gupta*) 217
Gupta, S. K. A Solar Energy Accelerated Process for Combined Desizing, Scouring, and Bleaching of Cotton Fabrics (*Gulrajani, Gupta*) 217

Hari, P. K. High Pressure Squeezing in Sizing: Performance of Cotton Yarn (*Behera, Prakash, Dhawan*) 597
Harper, Robert J., Jr. Comparison of Cotton/Polyester Core and Staple Blend Yarns and Fabrics (*Ruppenicker, Sawhney, Robert*) 12
Use of Cellulose Ethers in Migration Control (*Lambert*) 584
Harwood, R. J. Cuticular Scale Measurements Using Image Analysis Techniques (*Robson, Weedall*) 713
Hearle, J. W. S. Friction and Slip in Textile Processes ... 769
Hebert, J. J. A Comparison of the Response of Cotton and Milkweed to Selected Swelling and Crosslinking Treatments (*Kottes Andrews, Kimmel, Bertoniere*) 675
Hodgson, Robert M. Carpet Texture Measurement Using Image Analysis (*Wood*) 1
Hollies, N. R. S. Polymerization-Crosslinking of Cotton Fabric for Superior Performance Properties Part I: A Preliminary Study (*Shin, Yeh*) 635
Holt, L. A. Substantivity of Various Anionic Surfactants Applied to Wool (*Onorato*) 653
Hudson, Antony H. F. Analysis of the Intercellular and Membrane Lipids of Wool and Other Animal Fibers (*Logan, Rivett, Tucker*) 109

Ishtiaque, S. M. Longitudinal Fiber Distribution in Relation to Rotor Spun Yarn Properties 696

Jayaraman, Sundaresan Weave Room of the Future Part I: Team Approach to Operations—A Simulation Study (*Malhotra*) 237
Part II: Monitored Data for Real-Time Resource Allocation (*Malhotra*) 271
Jones, L. N. Morphological Changes in Wool After Solvent Extraction and Treatments in Hot Aqueous Solutions (*Mansour*) 530

Kamecka-Jędrzejczak, Katarzyna Correlation Between Copolymer Characteristics, Conditions of Fiber Formation, and Mechanical Properties of PAN Carbon Fiber Precursor Part II: Effect of Intrinsic Viscosity of Acrylonitrile-Methyl Methacrylate Copolymer on Mechanical Properties (*Mikołajczyk, Krucińska*) 557
Part III: Effect of Fiber Formation Conditions on Mechanical Properties (*Mikołajczyk, Krucińska*) 665
Kaushik, R. C. D. Influence of Extension Rate and Specimen Length on Tenacity and Breaking Extension of Acrylic/Viscose Rayon Rotor Spun Yarns (*Salhotra, Tyagi*) 97
Kepka, Stanisław Abrasion Studies of Sized Cotton Yarns Before and After Weaving (*Friedman, Miller, Moreau*) 622
Studies of Fabric Wear Part I: Attrition of Cotton Fabrics (*Lamb, Miller*) 61
Kim, M. S. Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Bertoniere, Alger, Duffin, Dubuque, Collins, Xie*) 484
Kimmel, Linda B. A Comparison of the Response of Cotton and Milkweed to Selected Swelling and Crosslinking Treatments (*Kottes Andrews, Bertoniere, Hebert*) ... 675
Ring Spun All-Staple Core-Wrap Yarn—A Progress Report (*Louis, Salaun*) 244
King, Walter D. Effect of Scouring/Bleaching, Caustic Mercerization, and Liquid Ammonia Treatment on the Pore Structure of Cotton Textile Fibers (*Bertoniere*) 114
Pore Structure and Dyeability of Cotton Crosslinked with DMDHEU and with DHDMI (*Bertoniere*) 608
Kissa, Erik Partitioning and Particle Size of Dye Dispersions 66
Kothari, V. K. Air-Jet Texturing of Cotton-Filament Composite Yarns for Better Apparel Comfort (*Sengupta, Srinivasan, Goswami*) 292
Characterization of the Structural Integrity of Air-Jet Textured Yarns (*Sengupta, Alagirusamy*) 758
Influence of Interfilament Friction on Structure and Properties of Air Textured Yarns (*Sengupta, Rengasamy, Goswami*) 317
Shear Behavior of Woven Fabrics (*Tandon*) 142
Kottes Andrews, B. A. A Comparison of the Response of Cotton and Milkweed to Selected Swelling and Crosslinking Treatments (*Kimmel, Bertoniere, Hebert*) ... 675
Free and Hydrolytically Released Formaldehyde from DMDHEU-Finished Cotton Fabric (*Reinhardt*) 139
Reaction Equilibria and Textile Performance from Low Formaldehyde Release Carbamate Finishing (*Reinhardt*) 53
Krause, H. W. Theoretical Study of Wrapping Twist in Single Jet False Twist Spinning (*Soliman*) 546
Krishnamoorthy, S. Effect of Chemical Treatment on Density and Crystallinity of Jute Fibers (*Varma, Anantha Krishnan*) 368
Krucińska, Izabella Correlation Between Copolymer Characteristics, Conditions of Fiber Formation, and Mechanical Properties of PAN Carbon Fiber Precursor Part I: Effect of Copolymer Intrinsic Viscosity Distribution on Mechanical Properties (*Mikołajczyk*) 536
Part II: Effect of Intrinsic Viscosity of Acrylonitrile-Methyl Methacrylate Copolymer on Mechanical Properties (*Mikołajczyk, Kamecka-Jędrzejczak*) 557
Part III: Effect of Fiber Formation Conditions on Mechanical Properties (*Mikołajczyk, Kamecka-Jędrzejczak*) 665
Kumari Munukutla, Surya Influence of Spinning Dope Additives and Spin Bath Temperature on the Structure and Physical Properties of Acrylic Fibers (*Bajaj, Vaidya, Gupta*) 601
Physicomechanical Properties of Fibers from Blends of Acrylonitrile Terpolymer and Its Hydrolyzed Products (*Bajaj*) 191

Lamb, George E. R. Electrical Stimulation of Fabric Filtration Part VII: Studies of Simplified Electrode Design (*Duffy-Morris*) 257
Studies of Fabric Wear Part I: Attrition of Cotton Fabrics (*Kepka, Miller*) 61
Lambert, Allan H. Use of Cellulose Ethers in Migration Control (*Harper*) 584
LeBlanc, R. Bruce Degradation of Pyrovatex®-Treated Fabrics During Storage 307
Lee, Shirley NIRA Primary Wavelength Investigations of Nylon Yarns (*Rodgers*) 513
Leeder, J. D. Sorption of Synthappret BAP by Wool and Its Effect on Abrasion Resistance (*Cook, Fleischfresser, Rippon*) 754
Liu, D. Measuring and Interpreting Low-Stress Fabric Mechanical and Surface Properties Part II: Application to Finishing, Drycleaning, and Photodegradation of Wool Fabrics (*Dhingra, Postle*) 357
Livingston, Don L. Discrete-Event Simulation in the Design of Textile Finishing Processes (*Sommerfeld*) 589
Lloyd, D. W. Tearing of Fastenings Through Woven Fabrics: A Simple Theory Part I: Tearing Along Warp or Weft 680
Part II: Tearing in the Bias Direction 743
Logan, Raymond I. Analysis of the Intercellular and Membrane Lipids of Wool and Other Animal Fibers (*Rivett, Tucker, Hudson*) 109
Lombard, Gérard Theoretical and Experimental Opening Sizes of Heat-Bonded Geotextiles (*Rollin, Wolff*) 208
Louis, Gain L. Ring Spun All-Staple Core-Wrap Yarn—A Progress Report (*Salaun, Kimmel*) 244
Ly, N. G. Error Analysis of Measurements Made with the KES-F System 17

Madhusoothanan, M. Comments on "Frictional Characteristics of Apparel Fabrics" (*Subramaniam, Muthukrishnan*) 553
Magidman, Paul Pyrolysis Gas Chromatography of Wool Part II: Detection and Quantitation of Tryptophan in Wool and Simple Proteins (*Marmer, Farrell*) 616
Mahar, T. J. Measuring and Interpreting Low-Stress Fabric Mechanical and Surface Properties Part IV: Subjective Evaluation of Fabric Handle (*Postle*) 721
Malhotra, Rajeev Weave Room of the Future Part I: Team Approach to Operations—A Simulation Study (*Jayaraman*) 237
Part II: Monitored Data for Real-Time Resource Allocation (*Jayaraman*) 271
Manich, A. M. Friction Spun Yarns Versus Ring and Rotor Spun Yarns: Resistance to Abrasion and Repeated Extensions (*Barella*) 767
Influence of Cotton Fiber Properties on Yarn Hairiness (*Barella*) 632
Mansour, M. P. Morphological Changes in Wool After Solvent Extraction and Treatments in Hot Aqueous Solutions (*Jones*) 530
Marmer, William N. Effect of Urea on Bleaching of Wool with Hydrogen Peroxide Under Alkaline and Acidic Conditions (*Arifoglu, Carr*) 425
Pyrolysis Gas Chromatography of Wool Part II: Detection and Quantitation of Tryptophan in Wool and Simple Proteins (*Magidman, Farrell*) 616
McIntosh, S. A. Photolytic Properties of *Ortho*-Substituted 4-[*N,N*-Bis(β-Hydroxyethyl)amino]azobenzenes in Polymer Substrates (*Freeman*) 343
X-Ray Crystal Structure of the Dyes 2-Nitro-4'-[*N,N*-Bis-(β-Hydroxyethyl)amino]azobenzene and 2-Cyano-4'-[*N,N*-Bis(β-Hydroxyethyl)amino]azobenzene (*Freeman, Singh*) 389
Mehta, R. D. Factors Affecting Rotor Spinning of Fine Cotton Yarns (*Steadman, Gipson, Soliman*) 371
Mehta, Y. C. Effects of Heat Setting on Tensile and Dye Sorption Characteristics of Anionic Modified PET—A Comparison with Normal PET (*Pal, Gandhi*) 734
Mikołajczyk, Teresa Correlation Between Copolymer Characteristics, Conditions of Fiber Formation, and Mechanical Properties of PAN Carbon Fiber Precursor Part I: Effect of Copolymer Intrinsic Viscosity Distribution on Mechanical Properties (*Krucińska*) 536
Part II: Effect of Intrinsic Viscosity of Acrylonitrile-Methyl Methacrylate Copolymer on Mechanical Properties (*Krucińska, Kamecka-Jędrzejczak*) 557
Part III: Effect of Fiber Formation Conditions on Mechanical Properties (*Krucińska, Kamecka-Jędrzejczak*) 665
Miller, Bernard Abrasion Studies of Sized Cotton Yarns Before and After Weaving (*Friedman, Kepka, Moreau*) 622
Development of Hairiness of Sized Warp Yarns During Flexabrasive Wear (*Friedman, Zhou*) 495
Studies of Fabric Wear Part I: Attrition of Cotton Fabrics (*Lamb, Kepka*) 61
Mittal, R. M. Preparation of Cotton Fabrics at a Low Temperature Using Persulfate Activated Hydrogen Peroxide (*Sarma, Narasimham*) 748
Mock, G. N. A General Purpose Textile Plant Energy Consumption Model (*Grady, Pai, Throneburg*) 177
Mohamed, Mansour H. Theoretical Investigations of Beat-Up (*Zhang*) 395
Mohanty, A. K. Fenton's Reagent Initiated Graft Copolymerization of Methyl Methacrylate onto Jute Fibers (*Das, Singh*) 525
Montalvo, Joseph G., Jr. Kinetics of Dust Removal from Cotton by Repetitive Mechanical Cleaning Part I: Theory 33
Part II: Experimental 81
Moreau, Jerry P. Abrasion Studies of Sized Cotton Yarns Before and After Weaving (*Friedman, Miller, Kepka*) 622
Motamedi, F. Theory and Practice of Localized Fabric Deformations (*Bailey, Briscoe, Tabor*) 160
Munshi, V. G. A Critical Evaluation of the Relationship Between Fiber Quality Parameters and Hairiness of Cotton Yarns (*Viswanathan, Ukidve, Chandran*) 707
Muthukrishnan, P. Comments on "Frictional Characteristics of Apparel Fabrics" (*Subramaniam, Madhusoothanan*) 553

Narasimham, T. Preparation of Cotton Fabrics at a Low Temperature Using Persulfate Activated Hydrogen Peroxide (*Sarma, Mittal*) 748
Neogi, S. K. Comments on "Pressure Angle in Loom Shedding Cam Design" 770
Niaz, Ahmad Effect of Temperature of Alkali Solution on Mercerization (*Tahir*) 772

Onorato, J. Substantivity of Various Anionic Surfactants Applied to Wool (*Holt*) 653

Paek, Soae L. Pilling, Abrasion, and Tensile Properties of Fabrics from Open-End and Ring Spun Yarns 577
Pai, G. A. A General Purpose Textile Plant Energy Consumption Model (*Grady, Mock, Throneburg*) 177
Pailthorpe, M. T. An Investigation of Wool Hydrolysis in Conventional Carbonizing (*Wang*) 232
Expanding the Use of the Rapid Ninhydrin Test Method (*Wang*) 671
Pal, S. K. Effects of Heat Setting on Tensile and Dye Sorption Characteristics of Anionic Modified PET—A Comparison with Normal PET (*Mehta, Gandhi*) 734

Pal, S. N. More Comments on the Statistical Analysis in "Optimization of a Single-Stage Preparatory Process for Cotton Using Sodium Hypochlorite" 553
Pan, N. Theory of the Compression Hysteresis of Fibrous Assemblies (*Carnaby*) 275
Theory of the Shear Deformation of Fibrous Assemblies (*Carnaby*) 285
Pandey, S. N. Derivative Infrared Spectra of Ramie 226
Parra, J. L. Physicochemical Behavior of Hercosett/Anionic Surfactant Dispersion and Application on Untreated Wool to Impart Shrinkproofing (*de la Maza, Sánchez Leal, Comelles*) 173
Physicochemical Properties of Hercosett/Optical Brightener Agent Dispersions Applied to Untreated Wool for Shrinkproofing (*de la Maza, Sánchez Leal, Comelles*) 687
Peer Mohamed, A. Effect of Processing Parameters on the Properties of Double-Rove Spun Yarn Produced on a Short Staple Spinning System (*Subramaniam, Srinivasamoorthi*) 762
Perenich, Theresa A. Studies of Foam Finished Cotton Fabrics Using FT-IR Photoacoustic Spectroscopy (*Yang, Fateley*) 562
Piasecki, M. Frictional Restraints During the Knitting Process (*Żurek, Tyc, Frydrych*) 329
Prakash, Jai High Pressure Squeezing in Sizing: Performance of Cotton Yarn (*Hari, Behera, Dhawan*) 597
Postle, R. A Viscoelastic Analysis of the Keratin Composite Part I: Longitudinal and Transverse Mechanical Properties (*Tao*) 123
Part II: Thermal and Hygral Expansion (*Tao*) 300
Measuring and Interpreting Low-Stress Fabric Mechanical and Surface Properties Part II: Application to Finishing, Drycleaning, and Photodegradation of Wool Fabrics (*Dhingra, Liu*) 357
Part III: Optimization of Fabric Properties for Men's Suiting Materials (*Dhingra*) 448
Part IV: Subjective Evaluation of Fabric Handle (*Mahar*) 721

Rajeswari, S. Degree of Set in Fabrics and the Inverse Relaxation Effect (*Subramaniam*) 183
Ramey, Harmon H., Jr. Molecular Characterization of Three Cotton Varieties (*Timpa*) 661
Relationships Between Short Fiber Content and HVI Fiber Length Uniformity (*Beaton*) 101
Reinhardt, Robert M. Free and Hydrolytically Released Formaldehyde from DMDHEU-Finished Cotton Fabric (*Kottes Andrews*) 139
Reaction Equilibria and Textile Performance from Low Formaldehyde Release Carbamate Finishing (*Kottes Andrews*) 53
Rengasamy, R. S. Influence of Interfilament Friction on Structure and Properties of Air Textured Yarns (*Kothari, Sengupta, Goswami*) 317
Rippon, J. A. Sorption of Synthappret BAP by Wool and Its Effect on Abrasion Resistance (*Cook, Fleischfresser, Leeder*) 754
Rivett, Donald E. Analysis of the Intercellular and Membrane Lipids of Wool and Other Animal Fibers (*Logan, Tucker, Hudson*) 109
Robert, K. Q. Comparison of Cotton/Polyester Core and Staple Blend Yarns and Fabrics (*Ruppenicker, Harper, Sawhney*) 12
Cotton Covered Nylon-Core Yarns and Greige Fabrics (*Sawhney, Ruppenicker*) 185
Device for Producing Staple-Core/Cotton-Wrap Ring Spun Yarns (*Sawhney, Ruppenicker*) 519
Robson, D. Cuticular Scale Measurements Using Image Analysis Techniques (*Weedall, Harwood*) 713
Rodgers, James E. NIRA Primary Wavelength Investigations of Nylon Yarns (*Lee*) 513
Rollin, André Theoretical and Experimental Opening Sizes of Heat-Bonded Geotextiles (*Lombard, Wolff*) 208
Roussel, Laura Mercerization of Ramie: Comparisons with Flax and Cotton Part I: Effects on Physical, Mechanical, and Accessibility Characteristics (*Cheek*) 478
Part II: Effects of Dyeing and Behavior (*Cheek*) 541
Ruppenicker, G. F. Comparison of Cotton/Polyester Core and Staple Blend Yarns and Fabrics (*Harper, Sawhney, Robert*) 12
Cotton Covered Nylon-Core Yarns and Greige Fabrics (*Sawhney, Robert*) 185
Device for Producing Staple-Core/Cotton-Wrap Ring Spun Yarns (*Sawhney, Robert*) 519
Rys, P. Efficiency of Monofunctional Reactive Dyeing: A Mathematical Analysis (*Sperb*) 643

Salaun, Harold L. Ring Spun All-Staple Core-Wrap Yarn—A Progress Report (*Louis, Kimmel*) 244
Salhotra, K. R. Influence of Extension Rate and Specimen Length on Tenacity and Breaking Extension of Acrylic/Viscose Rayon Rotor Spun Yarns (*Kaushik, Tyagi*) 97
Sampathkumar, V. Effect of Salt Water Immersion on the Ultimate Tensile Strength of Small Diameter Aramid Braids (*Schwartz*) 94
Sánchez Leal, J. Physicochemical Behavior of Hercosett/Anionic Surfactant Dispersion and Application on Untreated Wool to Impart Shrinkproofing (*de la Maza, Parra, Comelles*) 173
Physicochemical Properties of Hercosett/Optical Brightener Agent Dispersions Applied to Untreated Wool for Shrinkproofing (*de la Maza, Parra, Comelles*) 687
Sarkar, A. K. Comments on Papers on the Subject of Spliced Yarns 630
Sarma, T. S. Preparation of Cotton Fabrics at a Low Temperature Using Persulfate Activated Hydrogen Peroxide (*Mittal, Narasimham*) 748
Sawhney, A. P. Comparison of Cotton/Polyester Core and Staple Blend Yarns and Fabrics (*Ruppenicker, Harper, Robert*) 12
Cotton Covered Nylon-Core Yarns and Greige Fabrics (*Ruppenicker, Robert*) 185
Device for Producing Staple-Core/Cotton-Wrap Ring Spun Yarns (*Robert, Ruppenicker*) 519
Schneider, A. M. Perception of the Heat of Sorption of Wool (*Stuart, Turner*) 324
Schwartz, P. Effect of Salt Water Immersion on the Ultimate Tensile Strength of Small Diameter Aramid Braids (*Sampathkumar*) 94
Modeling Woven Fabric Tensile Strength Using Statistical Bundle Theory (*Shahpurwala*) 26
Sengupta, A. K. Air-Jet Texturing of Cotton-Filament Composite Yarns for Better Apparel Comfort (*Kothari, Srinivasan, Goswami*) 292
Characterization of the Structural Integrity of Air-Jet Textured Yarns (*Kothari, Alagirusamy*) 758
Influence of Interfilament Friction on Structure and Properties of Air Textured Yarns (*Kothari, Rengasamy, Goswami*) 317
Shahpurwala, A. A. Modeling Woven Fabric Tensile Strength Using Statistical Bundle Theory (*Schwartz*) 26
Shimizu, Hiroko Effects of Ultrasound on Dyeing of Nylon 6 (*Shimizu, Yamamoto*) 684
Shimizu, Yoshio Effects of Ultrasound on Dyeing of Nylon 6 (*Yamamoto, Shimizu*) 684
Shin, Y. Polymerization-Crosslinking of Cotton Fabric for Superior Performance Properties Part I: A Preliminary Study (*Hollies, Yeh*) 635
Singh, B. C. Fenton's Reagent Initiated Graft Copolymerization of Methyl Methacrylate onto Jute Fibers (*Das, Mohanty*) 525

Singh, P. X-Ray Crystal Structure of the Dyes 2-Nitro-4'-[*N,N*-Bis(β-Hydroxyethyl)amino]azobenzene and 2-Cyano-4'-[*N,N*-Bis(β-Hydroxyethyl)amino]azobenzene (*McIntosh, Freeman*) 389
Slaten, B. Lewis Upholstery Fabric Performance: Actual Wear Versus Laboratory Abrasion (*Warfield*) 201
Smith, G. W. Spirality of Knitted Fabrics Part I: The Nature of Spirality (*de Araujo*) 247
Part II: The Effect of Yarn Spinning Technology on Spirality (*de Araujo*) 350
Smith, L. J. Effect of Lubrication on Tensile, Frictional, and Weaving Properties of Sirospun Wool Yarn (*Brooks, Das*) 382
Soliman, Ahmed S. Factors Affecting Rotor Spinning of Fine Cotton Yarns (*Steadman, Gipson, Mehta*) 371
Soliman, H. A. Theoretical Study of Wrapping Twist in Single Jet False Twist Spinning (*Krause*) 546
Sommerfeld, Jude T. Discrete-Event Simulation in the Design of Textile Finishing Processes (*Livingston*) 589
Sperb, R. P. Efficiency of Monofunctional Reactive Dyeing: A Mathematical Analysis (*Rys*) 643
Srinivasamoorthi, V. R. Effect of Processing Parameters on the Properties of Double-Rove Spun Yarn Produced on a Short Staple Spinning System (*Subramaniam, Peer Mohamed*) 762
Srinivasan, J. Air-Jet Texturing of Cotton-Filament Composite Yarns for Better Apparel Comfort (*Kothari, Sengupta, Goswami*) 292
Steadman, Robert G. Factors Affecting Rotor Spinning of Fine Cotton Yarns (*Gipson, Mehta, Soliman*) 371
Stuart, I. M. Perception of the Heat of Sorption of Wool (*Schneider, Turner*) 324
Subramaniam, V. Comments on "Appraisal of Woven Fabric Quality" 122
Comments on "Frictional Characteristics of Apparel Fabrics" (*Muthukrishnan, Madhusoothanan*) 553
Degree of Set in Fabrics and the Inverse Relaxation Effect (*Rajeswari*) 183
Effect of Processing Parameters on the Properties of Double-Rove Spun Yarn Produced on a Short Staple Spinning System (*Srinivasamoorthi, Peer Mohamed*) ... 762

Tabor, D. Theory and Practice of Localized Fabric Deformations (*Motamedi, Bailey, Briscoe*) 160
Tahir, Kabir-ud-din Effect of Temperature of Alkali Solution on Mercerization (*Niaz*) 772
Takagishi, Toru Free Radicals in Cellulose Fibers Treated with Low Temperature Plasma (*Wakida, Takeda, Tanaka*) 49
Takeda, Keiji Free Radicals in Cellulose Fibers Treated with Low Temperature Plasma (*Wakida, Tanaka, Takagishi*) 49
Tanaka, Itsuo Free Radicals in Cellulose Fibers Treated with Low Temperature Plasma (*Wakida, Takeda, Takagishi*) 49
Tandon, S. K. Shear Behavior of Woven Fabrics (*Kothari*) 142
Tao, Xiaoming A Viscoelastic Analysis of the Keratin Composite Part I: Longitudinal and Transverse Mechanical Properties (*Postle*) 123
Part II: Thermal and Hygral Expansion (*Postle*) 300
Throneburg, K. W. A General Purpose Textile Plant Energy Consumption Model (*Grady, Mock, Pai*) 177
Timpa, Judy D. Molecular Characterization of Three Cotton Varieties (*Ramey*) 661
Tucker, Daryl J. Analysis of the Intercellular and Membrane Lipids of Wool and Other Animal Fibers (*Logan, Rivett, Hudson*) 109
Turner, T. R. Perception of the Heat of Sorption of Wool (*Stuart, Schneider*) 324

Tyagi, G. K. Influence of Extension Rate and Specimen Length on Tenacity and Breaking Extension of Acrylic/Viscose Rayon Rotor Spun Yarns (*Kaushik, Salhotra*) 97
Tyc, E. Frictional Restraints During the Knitting Process (*Żurek, Piasecki, Frydrych*) 329

Ukidve, A. V. A Critical Evaluation of the Relationship Between Fiber Quality Parameters and Hairiness of Cotton Yarns (*Viswanathan, Munshi, Chandran*) 707

Vaidya, A. A. Influence of Spinning Dope Additives and Spin Bath Temperature on the Structure and Physical Properties of Acrylic Fibers (*Bajaj, Kumari Munukutla, Gupta*) 601
van den Brekel, L. D. M. Hydrodynamics in Packed Textile Beds (*de Jong*) 433
Viswanathan, G. A Critical Evaluation of the Relationship Between Fiber Quality Parameters and Hairiness of Cotton Yarns (*Munshi, Ukidve, Chandran*) 707
Varma, I. K. Effect of Chemical Treatment on Density and Crystallinity of Jute Fibers (*Anantha Krishnan, Krishnamoorthy*) 368

Wakida, Tomiji Free Radicals in Cellulose Fibers Treated with Low Temperature Plasma (*Takeda, Tanaka, Takagishi*) 49
Wang, C. An Investigation of Wool Hydrolysis in Conventional Carbonizing (*Pailthorpe*) 232
Expanding the Use of the Rapid Ninhydrin Test Method (*Pailthorpe*) 671
Warfield, Carol L. Upholstery Fabric Performance: Actual Wear Versus Laboratory Abrasion (*Slaten*) 201
Warner, S. B. Thermal Bonding of Polypropylene Fibers ... 151
Weedall, Philip J. Cuticular Scale Measurements Using Image Analysis Techniques (*Robson, Harwood*) 713
Effect of Solvent Treatments on the Handle of Wool Fabrics (*Carr*) 45
Wolff, Claude Theoretical and Experimental Opening Sizes of Heat-Bonded Geotextiles (*Lombard, Rollin*) 208
Wood, Errol J. Carpet Texture Measurement Using Image Analysis (*Hodgson*) 1
Wortmann, F.-J. Quantitative Fiber Mixture Analysis by Scanning Electron Microscopy Part II: Blends of Wool with Angora Rabbit Hair (*Wortmann, Arns*) 73
Wortmann, Gabrielle Quantitative Fiber Mixture Analysis by Scanning Electron Microscopy Part II: Blends of Wool with Angora Rabbit Hair (*Wortmann, Arns*) 73

Xie, Qinghua Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Zeronian, Bertoniere, Alger, Duffin, Kim, Dubuque, Collins*) 484
High Energy Radiation Effects on the Thermal Properties and Density of Nylon 6 Fibers (*Ellison, Zeronian*) .. 657

Yamamoto, Ryoko Effects of Ultrasound on Dyeing of Nylon 6 (*Shimizu, Shimizu*) 684
Yang, Charles Q. Studies of Foam Finished Cotton Fabrics Using FT-IR Photoacoustic Spectroscopy (*Perenich, Fateley*) 562
Yeh, K. Polymerization-Crosslinking of Cotton Fabric for Superior Performance Properties Part I: A Preliminary Study (*Shin, Hollies*) 635

Zahn, H. Characterization of Proteinaceous Contaminants Extracted from Scoured Wool and Wool Top (*Elling*) 460

Zeidman, Mishu I. An Integrated Approach to Dynamic Analysis of the Ring Spinning Process Part I: Without Air Drag and Coriolis Acceleration (*Batra, Ghosh*) .. 309
Part II: With Air Drag (*Batra, Ghosh*) 416
Zeronian, S. H. Effect of Dimethyloldihydroxyethyleneurea on the Properties of Cellulosic Fibers (*Bertoniere, Alger, Duffin, Kim, Dubuque, Collins, Xie*) 484
High Energy Radiation Effects on the Thermal Properties and Density of Nylon 6 Fibers (*Ellison, Xie*) 657
Zhang, Zhonghuai Theoretical Investigations of Beat-Up (*Mohamed*) 395
Zhou, Yong Y. Development of Hairiness of Sized Warp Yarns During Flexabrasive Wear (*Friedman, Miller*) 495
Zollinger, Heinrich Influence of pH and Ionic Strength on Equilibrium Sorption of Cationic Dyes by Acrylic Fibers (*Alberghina, Amato, Fisichella*) 264
Żurek, W. Frictional Restraints During the Knitting Process (*Tyc, Piasecki, Frydrych*) 329

SUBJECT INDEX

Abrasion
abrasion resistance of wool: treatment with Synthappret BAP: SEM studies *Cooke, Fleischfresser, Leeder, Rippon* 754
change in surface properties during wear: surface properties and thickness as related to abrasion resistance *Amirbayat, Cooke* 469
fabric-to-fabric abrasion: attrition of cotton fabrics *Lamb, Kepka, Miller* 61
friction versus ring and rotor spun yarns: resistance to abrasion and repeated extensions *Barella, Manich* .. 767
hairiness of sized warp yarns: development during flex-abrasive wear *Friedman, Zhou, Miller* 495
of fabrics from open-end and ring spun yarns: also pilling and tensile properties *Paek* 577
of sized cotton yarns: studies before and after weaving *Friedman, Miller, Kepka* 622
of soiled upholstery fabrics: actual wear versus laboratory abrasion *Warfield, Slaten* 201
Acrylics
acrylonitrile terpolymer: physicomechanical properties of fibers from blends of the terpolymer and its hydrolyzed products *Bajaj, Kumari* 191
and viscose rayon blends: influence of extension rate and specimen length on tenacity and breaking extension of rotor spun yarns *Kaushik, Salhotra, Tyagi* 97
sorption of cationic dyes by: influence of pH and ionic strength on equilibrium sorption *Alberghina, Amato, Fisichella, Zollinger* 264
structure and physical properties of: influence of spinning dope additives and spin bath temperatures *Bajaj, Kumari Munukutla, Vaidya, Gupta* 601
Amino Acids
detection and quantitation of tryptophan: pyrolysis gas chromatography of wool and simple proteins *Marmer, Magidman, Farrell* 616
Angora
rabbit hair blended with wool: quantitative fiber mixture analysis by SEM: analysis for systematic errors *Wortmann, Wortmann, Arns* 73
Animal Fibers
cuticular scale patterns of: image analysis techniques for determining Chinese cashmere and various wools *Robson, Weedall, Harwood* 713
intercellular and membrane lipids of: analysis of wool, cashmere, angora, mohair, other animal fibers, and human hair *Logan, Rivett, Tucker, Hudson* 109
wool and angora rabbit hair blends: quantitative fiber mixture analysis for systematic errors *Wortmann, Wortmann, Arns* 73
Aramids
small diameter aramid braids: effect of salt water immersion on ultimate tensile strength *Sampathkumar, Schwartz* 94

Birefringence
of mohair fibers: optical anisotropy: laser diffraction used to measure dimensions, shape, and area *Fouda, El-Farahaty, El-Tonsy* 506
Bleaching
combined desizing, scouring, and bleaching of cotton fabrics: solar energy accelerated process *Gulrajani, Gupta, Gupta* 217
effect on pore structure of cotton fibers: also effect of caustic mercerization and liquid ammonia treatment *Bertoniere, King* 114
low temperature preparatory process for cotton fabrics: persulfate activated hydrogen peroxide *Sarma, Mittal, Narasimham* 748
of wool fibers: rapid ninhydrin test method: expanding use to examine hydrolysis in wet treatments and light and heat exposure *Wang, Pailthorpe* 671
of wool under alkaline and acidic conditions: effect of urea on bleaching with hydrogen peroxide *Arifoglu, Marmer, Carr* 425
Blends
cotton/polyester core yarns: comparison with staple blend yarns and fabrics for durability and strength *Ruppenicker, Harper, Sawhney, Robert* 12
Bonding
heat-bonded nonwoven geotextiles: theoretical and experimental openings sizes of: geometric probability approach *Lombard, Rollin, Wolff* 208
hot calender bonding of polypropylene fibers: analysis of mechanical properties at the bond perimeter *Warner* 151

Carbon Fibers
PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation and properties: effect of copolymer intrinsic viscosity *Mikołajczyk, Krucińska* 536
PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation and properties:

effect of intrinsic viscosity of acrylonitrile-methyl methacrylate *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 557
PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation and properties: effect of formation conditions on mechanical properties *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 665
Carbonization
wool hydrolysis in conventional carbonizing: damage occurring mostly in baking process *Wang, Pailthorpe* 232
Carpets
heat set temperatures of nylon yarns: NIRA primary wavelength investigations *Rodgers, Lee* 513
texture of: measurements using image analysis: controlled wear measurements: requirements for lighting and camera focusing *Wood, Hodgson* 1
Catalysis
crosslinking in the presence of mixed catalysts: milder curing conditions *Chen* 464
kinetics of crosslinking reaction: cotton catalyzed with mixture of aluminum salts and tartaric acid *Chen* .. 337
Cellulosics
alternative cellulose solvent systems: production of regenerated cellulose fibers without carbon disulfide *Chegolya, Grinshpan, Burd* 501
free radicals in fibers: treatment with low temperature plasma on cotton, silk, rayon, wool, nylon 6, and PET *Wakida, Takeda, Tanaka, Takagishi* 49
molecular characterization of three cotton varieties: gel permeation chromatography *Timpa, Ramey* 661
monofunctional reactive dyeing of: efficiency of fixation for various dyeing conditions: mathematical analysis *Rys, Sperb* 643
Chromatography
gel permeation chromatography of three cottons: determining molecular weight distributions *Timpa, Ramey* 661
high performance liquid chromatography: analysis of low formaldehyde release carbamate finishing: reaction equilibria and textile performance *Kottes Andrews, Reinhardt* 53
pyrolysis gas chromatography of wool: detection and quantitation of tryptophan in wool and simple proteins *Marmer, Magidman, Farrell* 616
TLC studies of morphological changes in wool: following solvent extractions and treatments in hot aqueous solutions *Mansour, Jones* 530
Comfort
air-jet textured cotton-filament composite yarns: better thermal comfort and handle *Kothari, Sengupta, Srinivasan, Goswami* 292
heat of sorption of wool: perception by human subjects in wearer trials *Stuart, Schneider, Turner* 324
Composites
air-jet textured cotton-filament yarns: better thermal comfort and handle *Kothari, Sengupta, Srinivasan, Goswami* 292
all-staple core-wrap yarns: inexpensive ring spinning process using common equipment *Louis, Salaun, Kimmel* 244
cotton covered nylon-core yarns and greige fabrics: for flame retardent end uses: increased strength over intimate blends *Sawhney, Ruppenicker, Robert* 185
cotton/polyester core yarns: comparison with staple blend yarns and fabrics for durability and strength *Ruppenicker, Harper, Sawhney, Robert* 12
staple-core/cotton wrap yarns: device for producing ring spun yarns *Sawhney, Robert, Ruppenicker* 519
Compression
hysteresis of fibrous assemblies: comparison of theoretical prediction and experimental results *Carnaby, Pan* .. 275
Computer Techniques
computer simulation of melt spinning of PET: estimating the variability of PET spun fiber properties *Dutta* .. 411
discrete-event simulation: design of textile finishing processes *Livingston, Sommerfeld* 589
for optimizing fabric properties: measuring and interpreting low-stress mechanical and surface properties of wool men's suitings *Postle, Dhingra* 448
multicollinearity between HVI fiber properties: diagnostic procedures *El Mogahzy, Broughton* 440
of image analysis: measuring controlled wear in carpet texture: requirements for lighting and camera focusing *Wood, Hodgson* 1
simplified instability measurement devices: testing air-jet textured yarns *Demir* 492
textile plant energy consumption model: summary of models using regression techniques and enthalpy balances *Grady, Mock, Pai, Throneburg* 177
weave room of the future: team approach to operations: simulation study *Jayaraman, Malhotra* 237
weave room of the future: monitored data for real-time resource allocation *Jayaraman, Malhotra* 271
Contaminants
proteinaceous contaminants in scoured wool and top: characterization of: comparison of brightness *Elling, Zahn* 460
Cotton Dust
kinetics of dust removal: repetitive mechanical cleaning: two kinetic models presented *Montalvo* 33
kinetics of dust removal: repetitive mechanical cleaning with a fiber blender: fit of data to decreasing-force model *Montalvo* 81
Cotton Fabrics
abrasion of: fabric-to-fabric abrasion: attrition of cotton fabrics *Lamb, Kepka, Miller* 61
abrasion resistance of: change in surface properties during wear *Amirbayat, Cooke* 469
combined desizing, scouring, and bleaching: solar energy accelerated process *Gulrajani, Gupta, Gupta* 217
cotton and milkweed intimate blends: response to selected swelling and crosslinking treatments *Kottes Andrews, Kimmel, Bertoniere, Hebert* 675
crosslinking in the presence of mixed catalysts: milder curing conditions *Chen* 464
flame retardant flannel: degradation of Pyrovatex®-treated fabrics during storage *LeBlanc* 307
foam finished: studies using FT-IR photoacoustic spectroscopy: better finish distribution *Yang, Perenich, Fateley* 562
free and hydrolytically released formaldehyde in: DMDHEU-finished cotton fabric *Reinhardt, Kottes Andrews* 139
frictional characteristics of: comments on paper *Subramaniam, Muthukrishnan, Madhusoothanan* .. 553
hydrodynamics in packed textile beds: fluid flow as a factor in finishing and cleaning *van den Brekel, de Jong* .. 433
kinetics of crosslinking reaction: catalyzed with mixtures of aluminum salts and tartaric acid *Chen* 337
low formaldehyde release carbamate finishing: reaction equilibria and textile performance: comparison with finish from DMDHEU *Kottes Andrews, Reinhardt* 53
low temperature preparatory process: persulfate activated hydrogen peroxide *Sarma, Mittal, Narasimham* .. 748
pilling, abrasion, and tensile properties of: cotton and polyester blends: fabrics from open-end and ring spun yarns *Paek* 577
polymerization-crosslinking treatment: superior performance properties: preliminary study *Shin, Hollies, Yeh* 635
pore structure and dyeability of: crosslinked with DMDHEU and DHDMI *Bertoniere, King* 608

reagent migration control in: use of cellulose ethers *Lambert, Harper* 584
single-stage preparatory process for: more comments on statistical analysis *Pal* 553
spirality of knitted fabrics: magnitude of spirality offset by yarn twist *de Araujo, Smith* 247
spirality of knitted fabrics: effect of yarn spinning technology on: blends produce less spirality than 100% cotton *de Araujo, Smith* 350
woven fabric tensile strength: modeling with statistical bundle theory *Shahpurwala, Schwartz* 26

Cotton Fibers
effect of DMDHEU on mechanical properties: premercerization as a beneficial treatment *Zeronian, Bertoniere, Alger, Duffin, Kim, Dubuque, Collins, Xie* .. 484
low temperature plasma treatments of: free radicals in: also silk, wool, nylon 6, rayon, PET *Wakida, Takeda, Tanaka, Takagishi* 49
mercerization of: effect of alkali solution temperature: chain mercerization conditions *Niaz, Tahir* 772
molecular characterization of three varieties: gel permeation chromatography to determine molecular weight distributions *Timpa, Ramey* 661
multicollinearity between HVI fiber properties: diagnostic procedures for *El Mogahzy, Broughton* 440
pore structure of: effect of scouring/bleaching, caustic mercerization, and liquid ammonia treatment *Bertoniere, King* 114
relation between maturity and Micronaire: variation in one changes the other *Balasubramaniam* 634
short fiber content: relationship with HVI fiber length uniformity *Ramey, Beaton* 101

Cotton Yarns
abrasion of sized yarns: studies before and after weaving *Friedman, Miller, Kepka* 622
air-jet textured cotton-filament composite yarns: better thermal comfort and handle *Kothari, Sengupta, Srinivasan, Goswami* 292
all-staple core-wrap yarns: inexpensive ring spinning process using common equipment *Louis, Salaun, Kimmel* 244
and polyester sized yarns: development of hairiness during flexabrasive wear *Friedman, Zhou, Miller* 495
cotton covered nylon-core yarns: also greige fabrics: for flame retardant end uses: increased strength over intimate blends *Sawhney, Ruppenicker, Robert* 185
cotton/polyester core yarns: comparison of core and staple blend yarns and fabrics for durability and strength *Ruppenicker, Harper, Sawhney, Robert* ... 12
double-rove spun yarns: produced on short staple spinning system: effect of processing parameters on properties *Subramaniam, Srinivasamoorthi, Peer Mohamed* 762
hairiness of: as measured on the Zweigle G 565: experimental values *Barella, Egio, Castro, Gelabert* 710
hairiness of: critical evaluation of relationship between fiber quality parameters and hairiness *Viswanathan, Munshi, Ukidve, Chandran* 707
hairiness of: influence of fiber properties *Barella, Manich* 632
high pressure squeezing in sizing: performance of yarns *Hari, Behera, Prakash, Dhawan* 597
high twist ring spun yarns: breaking elongation of: derivation of a model from single cotton varieties *Aggarwal* 691
high twist ring spun yarns: model to estimate breaking elongation of: applicability of model to yarns from mixtures of cottons *Aggarwal* 717
mercerization of: comparisons with flax and ramie: effect on physical, mechanical, and accessibility characteristics *Cheek, Roussel* 478
mercerization of: comparisons with flax and ramie: effect on dyeing and behavior *Cheek, Roussel* 541
rotor spinning of fine cotton yarns: factors affecting *Steadman, Gipson, Mehta, Soliman* 371
spliced yarns: comments on four papers *Sarkar* 630
staple-core/cotton-wrap yarns: device for producing ring spun yarns *Sawhney, Robert, Ruppenicker* 519

Crimped Yarns
inverse relaxation effect: degree of set in fabrics *Subramaniam, Rajeswari* 183

Crosslinking
cotton crosslinked with DMDHEU and DHDMI: pore structure and dyeability of *Bertoniere, King* 608
kinetics of reaction of cotton: catalyzed with mixtures of aluminum salts and tartaric acid *Chen* 337
of cotton and milkweed intimate blends: response to selected swelling treatments *Kottes Andrews, Kimmel, Bertoniere, Hebert* 675
polymerization-crosslinking treatment: superior performance properties of cotton fabrics: preliminary study *Shin, Hollies, Yeh* 635
reagent migration in cotton fabrics: control of using cellulose ethers *Lambert, Harper* 584

Deformation
as measured by the KES-F system: error analysis of measurements on wool and polyester and their blends *Ly* 17
compression hysteresis of fibrous assemblies: comparison of theoretical prediction and experimental results *Carnaby, Pan* 275
localized fabric deformation: theory and practice of: single yarn pull-out test *Motamedi, Bailey, Briscoe, Tabor* 160
shear deformation of fibrous assemblies: internal deformation similar to external compression *Carnaby, Pan* 285
tearing of fastenings through woven fabrics: a simple theory: tearing along warp or weft *Lloyd* 680
tearing of fastenings through woven fabrics: a simple theory: tearing in the bias direction *Lloyd* 743

Degradation
morphological changes in wool: following solvent extraction and treatments in hot aqueous solutions *Mansour, Jones* 530
of aramid in salt water: effect of immersion on ultimate tensile strength of small diameter braids *Sampathkumar, Schwartz* 94
of copper(II)-wool keratin complex: degradation by hydrogen peroxide *Fukatsu* 405
of flame retardant cotton flannel: degradation of Pyrovatex®-treated fabric during storage *LeBlanc* 307
of irradiated nylon 6 fibers: high energy radiation effects on thermal properties and density *Ellison, Zeronian, Xie* 657
of wool bleached with hydrogen peroxide: effect of urea under alkaline and acidic conditions *Arifoglu, Marmer, Carr* 425

Density
and crystallinity of jute fibers: effect of chemical treatment *Varma, Anantha Krishnan, Krishnamoorthy* 368
of irradiated nylon 6 fibers: high energy radiation effects on thermal properties *Ellison, Zeronian, Xie* 657
of woven fabric: comments on appraisal of woven fabric quality *Subramaniam* 122

Dispersion
of dyes: effect of partitioning and particle size of sand milled dyes stabilized with sodium lignosulfonate *Kissa* .. 66

Drawing
of PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation and properties: effect of formation conditions on mechanical

properties *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 665
Drycleaning
of wool fabrics: measuring and interpreting low-stress mechanical and surface properties: application to finishing, drycleaning, and photodegradation *Dhingra, Liu, Postle* 357
Durable Press
cotton crosslinked with DMDHEU and DHDMI: pore structure and dyeability of *Bertoniere, King* 608
crosslinking in the presence of mixed catalysts: milder curing conditions *Chen* 464
effect of DMDHEU on cotton mechanical properties: premercerization as a beneficial treatment *Zeronian, Bertoniere, Alger, Duffin, Kim, Dubuque, Collins, Xie* 484
foam finished cotton fabrics: studies of using FT-IR spectroscopy: higher wrinkle recovery angles *Yang, Perenich, Fateley* 562
free and hydrolytically released formaldehyde in: DMDHEU-finished cotton fabric *Reinhardt, Kottes Andrews* 139
kinetics of crosslinking reactions: cotton catalyzed with aluminum salts and tartaric acid *Chen* 337
low formaldehyde release carbamate finishing: reaction equilibria and textile performance of cotton: comparison with finish from DMDHEU *Kottes Andrews, Reinhardt* 53
polymerization-crosslinking treatment: superior performance properties of cotton fabrics: preliminary study *Shin, Hollies, Yeh* 635
Dyeing
effects of ultrasound on dyeing of nylon 6: increased dye uptakes *Shimizu, Yamamoto, Shimizu* 684
monofunctional reactive dyeing: efficiency of: mathematical analysis of diffusion-reaction process *Rys, Sperb* 643
of anionic modified PET: effects of heat setting on tensile and dye sorption characteristics: comparison with normal PET *Pal, Mehta, Gandhi* 734
of cotton crosslinked with DMDHEU and DHDMI: pore structure and dyeability of *Bertoniere, King* 608
of ramie: mercerization of: comparisons with flax and cotton: effect on dyeing and behavior *Cheek, Roussel* 541
Dyes
dye dispersions: partitioning and particle size of sand milled dyes stabilized with sodium lignosulfonate *Kissa* .. 66
photolytic properties of azo dyes: *ortho*-substituted 4-[*N*,*N*-bis(β-hydroxyethyl)amino]azobenzenes in polymer substrates *Freeman, McIntosh* 343
sorption of cationic dyes by acrylic fibers: influence of pH and ionic strength on equilibrium sorption *Alberghina, Amato, Fisichella, Zollinger* 264
x-ray crystal structure of: 2-nitro and 2-cyano derivatives of 4′-[*N*,*N*-bis(β-hydroxyethyl)amino]azobenzene *McIntosh, Freeman, Singh* 389
Dynamics
of the ring spinning process: integrated approach: without air drag and Coriolis acceleration *Batra, Ghosh, Zeidman* 309
of the ring spinning process: integrated approach: with air drag *Batra, Ghosh, Zeidman* 416

Electrostatics
in stimulation of fabric filtration: studies of simplified electrode design *Lamb, Duffy-Morris* 257
Energy Conservation
low temperature preparatory process for cotton fabrics: persulfate activated hydrogen peroxide *Sarma, Mittal, Narasimham* 748
solar energy accelerated process: combined desizing, scouring, and bleaching of cotton fabrics *Gulrajani, Gupta, Gupta* 217
textile plant energy consumption model: summary of models using regression techniques and enthalpy balances *Grady, Mock, Pai, Throneburg* 177

Fabric Geometry
heat-bonded nonwoven geotextiles: theoretical and experimental opening sizes of: geometric probability approach *Lombard, Rollin, Wolff* 208
localized fabric deformations: theory and practice of: single yarn pull-out test *Motamedi, Bailey, Briscoe, Tabor* 160
spirality of knitted fabrics: magnitude of spirality offset by selection of yarn twist *de Araujo, Smith* 247
spirality of knitted fabrics: effect of yarn spinning technology on *de Araujo, Smith* 350
tearing of fastenings through woven fabrics: a simple theory: tearing along warp or weft *Lloyd* 680
tearing of fastenings through woven fabrics: a simple theory: tearing in the bias direction *Lloyd* 743
Fabric Testing
on the KES-F system: effect of solvent treatments on the handle of men's wool winter suiting materials *Carr, Weedall* 45
on the KES-F system: error analysis of measurements of deformation on wool, polyester, and their blends *Ly* 17
Fabric Properties
density of woven fabric: comments on appraisal of woven fabric quality *Subramaniam* 122
woven fabric tensile strength: modeling with statistical bundle theory *Shahpurwala, Schwartz* 26
Filtration
electrical stimulation of fabric filtration: studies of simplified electrode design *Lamb, Duffy-Morris* 257
heat-bonded nonwoven geotextiles: theoretical and experimental opening sizes of: geometric probability approach *Lombard, Rollin, Wolff* 208
Finishing
discrete-event simulation of: design of textile finishing processes *Livingston, Sommerfeld* 589
foam finished cotton fabrics: studies using FT-IR photoacoustic spectroscopy: better finish distribution *Yang, Perenich, Fateley* 562
of wool fabrics: measuring and interpreting low-stress mechanical and surface properties: application to finishing, drycleaning, and photodegradation *Dhingra, Liu, Postle* 357
Flame Retardant Fabrics
cotton covered nylon-core yarns and greige fabrics: for flame retardant end uses: increased strength over intimate blends *Sawhney, Ruppenicker, Robert* 185
Pyrovatex® cotton flannel: degradation during storage *LeBlanc* 307
Flax
mercerization of: comparisons with cotton and ramie: effects on physical, mechanical, and accessibility characteristics *Cheek, Roussel* 478
mercerization of: comparisons with ramie and cotton: effect on dyeing and behavior *Cheek, Roussel* 541
Fluid Flow
hydrodynamics in packed textile beds: fluid flow as a factor in finishing and cleaning *van den Brekel, de Jong* .. 433
Fluorescence
fluorescent surfactants: substantivity of various anionic surfactants applied to wool *Holt, Onorato* 653
for determining penetration of reducing agents in wool: fluorescence microscopy *Evans* 569

Foams
foam finished cotton fabrics: studies using FT-IR photoacoustic spectroscopy: better finish distribution *Yang, Perenich, Fateley* 562
Formaldehyde
crosslinking of cotton in the presence of mixed catalysts: milder curing conditions *Chen* 464
effect of DMDHEU on cotton mechanical properties: premercerization as a beneficial treatment *Zeronian, Bertoniere, Alger, Duffin, Kim, Dubuque, Collins, Xie* 484
free and hydrolytically released: from DMDHEU-finished cotton fabric *Reinhardt, Kottes Andrews* 139
low formaldehyde release carbamate finishing: reaction equilibria and textile performance of cotton: comparison with DMDHEU finish *Kottes Andrews, Reinhardt* 53
Fractography
of modified acrylic fibers: influence of spinning dope additives and spin bath temperature: structure and physical properties of *Bajaj, Kumari Munukutla, Vaidya, Gupta* 601
Friction
and slip in textile processes: comments on paper on mechanics of high speed texturing *Hearle* 769
effect on Sirospun wool yarns: effect of lubrication on textile, frictional, and weaving properties *Brooks, Das, Smith* 382
friction spun yarns versus ring and rotor: resistance to abrasion and repeated extensions *Barella, Manich* .. 767
frictional characteristics of apparel fabrics: comments on paper *Subramaniam, Muthukrishnan, Madhusoothanan* 553
frictional restraints during knitting process: mathematical analysis *Żurek, Tyc, Piasecki, Frydrych* 329
influence on air textured yarns: effect of interfilament friction on structure and properties *Kothari, Sengupta, Srinivasan, Goswami* 317
in the single yarn pull-out test: localized fabric deformations: theory and practice *Motamedi, Bailey, Briscoe, Tabor* 160

Geotextiles
heat-bonded: theoretical and experimental opening sizes of nonwovens: geometric probability approach *Lombard, Rollin, Wolff* 208

Hair
intercellular and membrane lipids in: analysis of wool, other animal fibers, and human hair *Logan, Rivett, Tucker, Hudson* 109
Hairiness
influence of fiber properties on: cotton yarns *Barella, Manich* 632
of cotton yarns: as measured on the Zweigle G 565: experimental values *Barella, Egio, Castro, Gelabert* .. 710
of cotton yarns: critical evaluation of relationship between fiber quality parameters and hairiness *Viswanathan, Munshi, Ukidve, Chandran* 707
of sized warp yarns: development during flexabrasive wear *Friedman, Zhou, Miller* 495
Handle
of men's wool suiting materials: low-stress mechanical and surface properties: optimization of properties for suitings *Postle, Dhingra* 448
of men's wool suiting materials: low-stress mechanical and surface properties: subjective evaluation of fabric handle *Mahar, Postle* 721
of wool fabrics treated with solvents: measurements on the KES-F system of men's winter suiting materials *Carr, Weedall* 45
Heat Phenomena
heat of sorption of wool: perception by human subjects in wearer trials *Stuart, Schneider, Turner* 324
Heat Setting
of anionic modified PET: effects on tensile and dye sorption characteristics: comparison with normal PET *Pal, Mehta, Gandhi* 734
of nylon 66 carpet yarns: NIRA primary wavelength investigations *Rodgers, Lee* 513
Hydrolysis
of wool fibers: rapid ninhydrin test method: expanding use to examine hydrolysis in wet treatments and light and heat exposure *Wang, Pailthorpe* 671
of wool in conventional carbonizing: damage occurring mostly in baking process *Wang, Pailthorpe* 232

Image Analysis
carpet texture measurement: differences from controlled wear: requirements for camera focusing and lighting *Wood, Hodgson* 1
cuticular scale measurements of animal fibers: scale patterns of Chinese cashmere and various wools *Robson, Weedall, Harwood* 713
Infrared
derivative infrared spectra of ramie: simple and less expensive technique to evaluate fine structure changes *Pandey* 226
near infrared reflectance analysis: primary wavelength investigations of nylon 66 carpet yarns *Rodgers, Lee* 513
photoacoustic infrared spectra: studies of foam finished cotton fabrics: better finish distribution *Yang, Perenich, Fateley* 562
Irradiation
of azo dyes on polymer substrates: photolytic properties of *ortho*-substituted 4-[*N*,*N*-bis(β-hydroxyethyl)-amino]azobenzenes *Freeman, McIntosh* 343

Jute
density and crystallinity of: effect of chemical treatment *Varma, Anantha Krishnan, Krishnamoorthy* 368
graft copolymerization of vinyl monomers onto: Fenton's reagent initiated grafting of methyl methacrylate *Das, Mohanty, Singh* 525

Keratin
copper(II)-wool keratin complex: degradation by hydrogen peroxide *Fukatsu* 405
penetration of Synthappret BAP into nonkeratinous regions of wool: effect on abrasion resistance: SEM studies *Cook, Fleischfresser, Leeder, Rippon* 754
viscoelastic analysis of the keratin composite: longitudinal and transverse mechanical properties *Tao, Postle* .. 123
viscoelastic analysis of the keratin composite: thermal and hygral expansion *Tao, Postle* 300
water-impenetrable component of: α-helical ropes present in the α-keratin structure *Feughelman* 739
Kinetics
of crosslinking reaction: cotton catalyzed with mixtures of aluminum salts and tartaric acid *Chen* 337
of dust removal from cotton: repetitive mechanical cleaning: two kinetic models presented *Montalvo* 33
of dust removal from cotton: repetitive mechanical cleaning with a fiber blender: fit of data to decreasing-force model *Montalvo* 81

Knits
cotton and milkweed intimate blends: response to selected swelling and crosslinking treatments *Kottes Andrews, Kimmel, Bertoniere, Hebert* 675
spirality of knitted fabrics: nature of spirality: magnitude of spirality offset by yarn twist *de Araujo, Smith* .. 247
spirality of knitted fabrics: effect of yarn spinning technology on: blends produce less spirality than 100% cotton *de Araujo, Smith* 350
Knitting
frictional restraints during knitting process: mathematical analysis *Żurek, Tyc, Piasecki, Frydrych* 329

Lasers
diffraction used to measure mohair fibers: optical anisotropy *Fouda, El-Farahaty, El-Tonsy* 506
Lightfastness
of azo dyes on polymer substrates: photolytic properties of *ortho*-substituted 4-[*N*,*N*-bis(β-hydroxyethyl)-amino]azobenzenes *Freeman, McIntosh* 343
of monoazo disperse dyes: x-ray crystal structure of the 2-nitro and 2-cyano derivatives of 4'-[*N*,*N*-bis(β-hydroxyethyl)amino]azobenzene *McIntosh, Freeman, Singh* 389
Light Phenomena
damage to wool with hydrolysis: rapid ninhydrin test method: expanding use to examine hydrolysis in wet treatments and light and heat exposure *Wang, Pailthorpe* 671
Lipids
intercellular and membrane: analysis of wool, other animal fibers, and human hair *Logan, Rivett, Tucker, Hudson* 109
Looms
loom shedding cam design: pressure angle in: comments on paper *Neogi* 770
theoretical investigations of beat-up: factors influencing movement of filling yarn *Zhang, Mohamed* 395
Lubrication
effect on Sirospun wool yarns: effect on tensile, weaving, and frictional properties *Brooks, Das, Smith* 382

Mathematical Analysis
dynamics of ring spinning process: integrated approach: without air drag and Coriolis acceleration *Batra, Ghosh, Zeidman* 309
dynamics of ring spinning process: integrated approach: with air drag *Batra, Ghosh, Zeidman* 416
hydrodynamics in packed textile beds: fluid flow as a factor in finishing and cleaning *van den Brekel, de Jong* 433
kinetics of dust removal from cotton: repetitive mechanical cleaning: two kinetic models presented *Montalvo* 33
kinetics of dust removal from cotton: repetitive mechanical cleaning with a fiber blender: fit of data to decreasing-force model *Montalvo* 81
of breaking elongation of cotton: high twist ring spun yarns: derivation of model for yarns from single cotton varieties *Aggarwal* 691
of breaking elongation of cotton: high twist ring spun yarns: applicability of model to yarns from mixtures of cottons *Aggarwal* 717
of frictional restraints during knitting: linear regression equation method *Żurek, Tyc, Piasecki, Frydrych* .. 329
of hot calender bonding of polypropylene fibers: analysis of mechanical properties at the bond perimeter *Warner* 151
of the keratin composite: viscoelastic analysis of longitudinal and transverse mechanical properties *Tao, Postle* 123
of the keratin composite: thermal and hygral expansion *Tao, Postle* 300
of localized fabric deformations: theory and practice of: single yarn pull-out test *Motamedi, Bailey, Briscoe, Tabor* 160
of monofunctional reactive dyeing: efficiency of fixation for various dyeing conditions *Rys, Sperb* 643
of short fiber content in cotton: relationship with HVI fiber length uniformity *Ramey, Beaton* 101
of woven fabric tensile strength: modeling with statistical bundle theory *Shahpurwala, Schwartz* 26
tearing of fastenings through woven fabrics: a simple theory: tearing along warp or weft *Lloyd* 680
tearing of fastenings through woven fabrics: a simple theory: tearing in the bias direction *Lloyd* 743
theoretical investigations of beat-up: factors influencing movement of filling yarn *Zhang, Mohamed* 395
theoretical study of wrapping twist: single jet false twist spinning *Krause, Soliman* 546
theory of compression hysteresis of fibrous assemblies: comparison of theoretical prediction and experimental results *Carnaby, Pan* 275
theory of shear deformation of fibrous assemblies: modulus values related to those derived for compression behavior *Carnaby, Pan* 285
Mechanical Properties
low-stress mechanical and surface properties of wool fabrics: application to finishing, drycleaning, and photodegradation *Dhingra, Liu, Postle* 357
low-stress mechanical and surface properties of wool fabrics: optimization of properties for men's suiting materials *Postle, Dhingra* 448
low-stress mechanical and surface properties of wool fabrics: subjective evaluation of fabric handle *Mahar, Postle* 721
of acrylonitrile terpolymer fibers: also blends of its hydrolyzed products: structural properties, spinnability, fracture morphology *Bajaj, Kumari* 191
of PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation: effect of copolymer instrinsic viscosity *Mikołajczyk, Krucińska* 536
of PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation: effect of intrinsic viscosity of acrylonitrile-methyl methacrylate *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 557
of PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation: effect of formation conditions on mechanical properties *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 665
of the wool keratin composite: viscoelastic analysis of longitudinal and transverse properties *Tao, Postle* 123
Mechanics
compression hysteresis of fibrous assemblies: comparison of theory and experiment *Carnaby, Pan* 275
shear deformation of fibrous assemblies: internal deformation similar to external compression *Carnaby, Pan* 285
Melt Spinning
computer simulation of: estimating the variability of PET spun fiber properties *Dutta* 411
Mercerization
effect of alkali solution temperature: chain mercerizing conditions *Niaz, Tahir* 772
effect of pore structure of cotton fibers: also effect of scouring/bleaching and liquid ammonia treatment *Bertoneire, King* 114
of cotton and milkweed intimate blends: response to swelling and crosslinking treatments *Kottes Andrews, Kimmel, Bertoniere, Hebert* 675
of ramie: comparisons with flax and cotton: effects on physical, mechanical, and accessibility characteristics *Cheek, Roussel* 478

of ramie: comparisons with flax and cotton: effect on dyeing and behavior *Cheek, Roussel* 541
premercerization as a beneficial treatment: effects of DMDHEU on mechanical properties of cotton *Zeronian, Bertoniere, Alger, Duffin, Kim, Dubuque, Collins, Xie* 484
Micronaire
relation between maturity and Micronaire: variation in one changes the other *Balasubraminiam* 634
Microscopy
fluorescence microscopy: method for determining penetration of reducing agents into wool fibers *Evans* .. 569
TEM studies of morphological changes in wool: following solvent extraction and treatments in hot aqueous solutions *Mansour, Jones* 530
Migration
of reagents in cotton fabrics: control using cellulose ethers *Lambert, Harper* 584
Milkweed
and cotton intimate blends: response to selected swelling and crosslinking treatments *Kottes Andrews, Kimmel, Bertoniere, Hebert* 675
Models
textile plant energy consumption model: summary of models using regression techniques and enthalpy balances *Grady, Mock, Pai, Throneburg* 177
Mohair
optical anisotropy in: laser diffraction used to measure dimensions, shape, and area of fibers *Fouda, El-Farahaty, El-Tonsy* 506
Monomers
graft copolymerization of vinyl monomers onto jute: Fenton's reagent initiated grafting of methyl methacrylate *Das, Mohanty, Singh* 525

Nonwovens
heat-bonding geotextiles: theoretical and experimental opening sizes of: geometric probability approach *Lombard, Rollin, Wolff* 208
Nylon
cotton covered nylon-core yarns: also greige fabrics: for flame retardant end uses: increased strength over intimate blends *Sawhney, Ruppenicker, Robert* 185
effects of ultrasound on dyeing of: increased dye uptakes *Shimizu, Yamamoto, Shimizu* 684
high energy radiation of: effects on thermal properties and density *Ellison, Zeronian, Xie* 657
low temperature plasma treatments of: free radicals in: also cotton, wool, silk, rayon, PET *Wakida, Takeda, Tanaka, Takagishi* 49
NIRA primary wavelength investigations: measurements of heat set temperature of carpet yarns *Rodgers, Lee* 513

Optics
image analysis techniques: cuticular scale measurements of Chinese cashmere and various wools *Robson, Weedall, Harwood* 713
to measure controlled wear in carpets: requirements for camera focusing and lighting of textured carpets *Wood, Hodgson* 1

Permeability
hydrodynamics in packed textile beds: fluid flow as a factor in finishing and cleaning *van den Brekel, de Jong* .. 433
Photodegradation
of wool fabrics: measuring and interpreting low-stress mechanical and surface properties: application to finishing, drycleaning, and photodegradation *Dhingra, Liu, Postle* 357
Photostability
of azo dyes: photolytic properties of *ortho*-substituted 4-[*N,N*-bis(β-hydroxyethyl)amino]azobenzenes in polymer substrates *Freeman, McIntosh* 343
of monoazo disperse dyes: x-ray crystal structure of the 2-nitro and 2-cyano derivatives of 4'-[*N,N*-bis(β-hydroxyethyl)amino]azobenzene *McIntosh, Freeman, Singh* 389
Physical Properties
of acrylonitrile terpolymer fibers: also blends of its hydrolyzed products: structural properties, spinnability, fracture morphology *Bajaj, Kumari* 191
of modified acrylic fibers: influence of spinning dope additives and spin bath temperature *Bajaj, Kumari Munukutla, Vaidya, Gupta* 601
of three cotton varieties: molecular characterization using gel permeation chromatography *Timpa, Ramey* ... 661
Pilling
of fabrics from open-end and ring spun yarns: also abrasion and tensile properties *Paek* 577
Plasma
low temperature plasma treatments: free radicals in cellulosic fibers: wool, cotton, silk, nylon 6, rayon, PET *Wakida, Takeda, Tanaka, Takagishi* 49
Pollutants
viscose production without carbon disulfide: alternative cellulose solvent systems *Chegolya, Grinshpan, Burd* 501
Pollution
fabric filtration: electrical stimulation of: studies of simplified electrode design *Lamb, Duffy-Morris* 257
Polyacrylonitrile
PAN carbon fiber precursor: correlation between copolymer characteristics, fiber formation, and mechanical properties: effect of copolymer intrinsic viscosity *Mikołajczyk, Krucińska* 536
PAN carbon fiber precursor: correlation between characteristics, fiber formation, and mechanical properties: effect of intrinsic viscosity of acrylonitrile-methyl methacrylate *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 557
PAN carbon fiber precursor: correlation between copolymer characteristics, fiber formation, and mechanical properties: effect of formation conditions on mechanical properties *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 665
Polyester
abrasion resistance of: change in surface properties during wear *Amirbayat, Cooke* 469
air-jet textured yarns: characterization of the structural integrity by repeated load testing *Sengupta, Kothari, Alagirusamy* 758
all-staple core-wrap yarns: inexpensive ring spinning process using common equipment *Louis, Salaun, Kimmel* 244
and cotton core yarns: comparison of core and staple blend yarns and fabrics for durability and strength *Ruppenicker, Harper, Sawhney, Robert* 12
and cotton sized yarns: development of hairiness during flexabrasive wear *Friedman, Zhou, Miller* 495
as measured on the KES-F system: error analysis of measurements of deformation on wool, polyester, and their blends *Ly* 17
frictional characteristics of: comments on paper *Subramaniam, Muthukrishnan, Madhusoothanan* 553
hydrodynamics in packed textile beds: fluid flow as a factor in finishing and cleaning *van den Brekel, de Jong* .. 433
low temperature plasma treatments of: free radicals in: also cotton, wool, silk, nylon 6, rayon *Wakida, Takeda, Tanaka, Takagishi* 49

pilling, abrasion, and tensile properties of: cotton and polyester blends: fabrics from open-end and ring spun yarns *Paek* 577
spliced yarns: comments on four papers *Sarkar* 630
staple-core/cotton-wrap yarns: device for producing ring spun yarns *Sawhney, Robert, Ruppenicker* 519
Polyethylene
anionic modified PET: effects of heat setting on tensile and dye sorption characteristics: comparison with normal PET *Pal, Mehta, Gandhi* 734
melt spinning of: estimating the variability of PET spun fiber properties using computer simulation *Dutta* .. 411
ultra-high strength: effects of strain rate and gauge length on failure: comments on paper *Andersson* 555
Polymerization
graft copolymerization of vinyl monomers on jute: Fenton's reagent initiated grafting of methyl methacrylate *Das, Mohanty, Singh* 525
polymerization-crosslinking treatment: superior performance properties of cotton fabrics: preliminary study *Shin, Hollies, Yeh* 635
Polymers
acrylonitrile terpolymer: physicomechanical properties of fibers from blends of the terpolymer and its hydrolyzed products *Bajaj, Kumari* 191
for shrinkproofing wool: single thread shrinkage of polymer treated fabrics *Guise, Freeland* 700
Polypropylene
thermal bonding of fibers: hot calender bonding of nonwovens: analysis of mechanical properties at the bond perimeter *Warner* 151
Porosity
hydrodynamics in packed textile beds: fluid flow as a factor in finishing and cleaning *van den Brekel, de Jong* .. 433
Pyrolysis
pyrolysis gas chromatography of wool: detection and quantitation of tryptophan in wool and simple proteins *Marmer, Magidman, Farrell* 616

Radiation
high energy radiation of nylon 6 fibers: effects on thermal properties and density *Ellison, Zeronian, Xie* 657
Ramie
derivative infrared spectra of: simple and less expensive technique to evaluate fine structure changes *Pandey* 226
mercerization of: comparisons with flax and cotton: effect on physical, mechanical, and accessibility characteristics *Cheek, Roussel* 478
mercerization of: comparisons with flax and cotton: effect on dyeing and behavior *Cheek, Roussel* 541
Rayon
abrasion resistance of: change in surface properties during wear *Amirbayat, Cooke* 469
and acrylic blends: influence of extension rate and specimen length on tenacity and breaking extension of rotor spun yarns *Kaushik, Salhotra, Tyagi* 97
low temperature plasma treatments of: free radicals in: also cotton, wool, nylon 6, silk, PET *Wakida, Takeda, Tanaka, Takagishi* 49
production without carbon disulfide: different cellulose solvent systems compared *Chegolya, Grinshpan, Burd* 501
rotor spun yarns: longitudinal fiber distribution in relation to yarn properties *Ishtiaque* 696
spliced yarns: comments on four papers *Sarkar* 630
Reflectance
brightness of scoured wool and top: characterization of proteinaceous contaminants extracted from wool *Elling, Zahn* 460
near infrared reflectance analysis: primary wavelength investigations of nylon 66 carpet yarns *Rodger, Lee* 513
optical brightener agent dispersions on wool: also Hercosett treatment for shrinkproofing: physicochemical properties of the dispersions *de la Maza, Parra, Sánchez Leal, Comelles* 687
Relaxation
inverse relaxation effect: degree of set in fabrics *Subramaniam, Rajeswari* 183
Resin Finishing
Hercosett/anionic surfactant dispersion: physicochemical behavior of resin on untreated wool for shrinkproofing *de la Maza, Parra, Sánchez Leal, Comelles* ... 173
Rope
small diameter aramid braids: effect of salt water immersion on ultimate tensile strength *Sampathkumar, Schwartz* 94

Scanning Electron Microscopy
of wool blended with angora rabbit hair: quantitative fiber mixture analysis for systematic errors *Wortmann, Wortmann, Arns* 73
Scouring
combined desizing, scouring, and bleaching of cotton fabrics: solar energy accelerated process *Gulrajani, Gupta, Gupta* 217
effect on pore structure of cotton fibers: also effect of caustic mercerization and liquid ammonia treatment *Bertoniere, King* 114
Shear Properties
shear behavior of wool fabrics: effects of finishing and wetting *Kothari, Tandon* 142
theory of shear deformation of fibrous assemblies: internal deformation similar to external compression *Carnaby, Pan* 285
Shrinkproofing
copper(II)-wool keratin complex: degradation by hydrogen peroxide *Fukatsu* 405
Hercosett/anionic surfactant dispersion: physicochemical behavior of the resin on untreated wool *de la Maza, Parra, Sánchez Leal, Comelles* 173
of wool: physicochemical properties of Hercosett/optical brightener agent dispersions applied to untreated wool *de la Maza, Parra, Sánchez Leal, Comelles* .. 687
single thread shrinkage in wool fabrics: polymer treatments that cause uneven shrinkage *Guise, Freeland* 700
Silk
low temperature plasma treatments of: free radicals in: also cotton, wool, nylon 6, rayon, PET *Wakida, Takeda, Tanaka, Takagishi* 49
Sizing
abrasion of sized cotton yarns: studies before and after weaving *Friedman, Miller, Kepka* 622
hairiness of sized warp yarns: development during flex-abrasive wear *Friedman, Zhou, Miller* 495
high pressure squeezing in: performance of cotton yarn *Hari, Behera, Prakash, Dhawan* 597
Sliver
spinning-in coefficient and critical fiber length ratio in: longitudinal fiber distribution in relation to rotor spun yarn properties *Ishtiaque* 696
Soiling
abrasion of soiled upholstery fabrics: actual wear versus laboratory abrasion *Warfield, Slaten* 201
Solvents
effect of solvent treatments on wool handle: measured on the KES-F system: men's winter suiting materials *Carr, Weedall* 45
for regenerated cellulose fiber production: alternative systems to produce fibers without carbon disulfide *Chegolya, Grinshpan, Burd* 501

Sorption
of cationic dyes by acrylic fibers: influence of pH and ionic strength on equilibrium sorption *Alberghina, Amato, Fisichella, Zollinger* 264
of Synthappret BAP by wool: effect on abrasion resistance: SEM studies *Cooke, Fleischfresser, Leeder, Rippon* 754
water-impenetrable component of α-keratin fibers: α-helical ropes present in the α-keratin structure *Feughelman* 739
Spectrophotometry
derivative infrared spectra of ramie: simple and less expensive technique to evaluate fine structure changes *Pandey* 226
Spectrum Analysis
of azo dyes on polymer substrates: photolytic properties of *ortho*-substituted 4-[*N*,*N*-bis(β-hydroxyethyl)amino]azobenzenes *Freeman, McIntosh* 343
Spinning
computer simulation of melt spinning: estimating the variability of PET spun fiber properties *Dutta* 411
double-rove spun cotton yarns: produced on short staple spinning system: effect of processing parameters on properties *Subramaniam, Srinivasamoorthi, Peer Mohamed* 762
dynamics of ring spinning process: integrated approach: without air drag and Coriolis acceleration *Batra, Ghosh, Zeidman* 309
dynamics of ring spinning process: integrated approach: with air drag *Batra, Ghosh, Zeidman* 416
effect on spirality of knitted fabrics: blend yarns produce less spirality than 100% cotton *de Araujo, Smith* .. 350
friction versus ring and rotor spun yarns: resistance to abrasion and repeated extensions *Barella, Manich* 767
hairiness of cotton yarns: critical evaluation of relationship between fiber quality parameters and hairiness *Viswanathan, Munshi, Ukidve, Chandran* 707
jet spun staple yarn: theoretical study of wrapping twist in single jet false twist spinning *Krause, Soliman* 546
modified ring spinning frame: production of staple-core/cotton-wrap yarns *Sawhney, Robert, Ruppenicker* .. 519
ring and rotor spun yarn hairiness: influence of cotton fiber properties on *Barella, Manich* 632
ring spun all-staple core-wrap yarns: inexpensive process using common equipment *Louis, Salaun, Kimmel* 244
rotor spinning of fine cotton yarns: factors affecting *Steadman, Gipson, Mehta, Soliman* 371
rotor spun yarns: longitudinal fiber distribution in relation to yarn properties *Ishtiaque* 696
wet spinning of modified acrylic fibers: influence of spinning dope additives and spin bath temperature on structural and physical properties *Bajaj, Kumari Munukutla, Vaidya, Gupta* 601
Splicing
spliced yarns: comments on four papers *Sarkar* 630
Statistical Methods
bundle theory: modeling woven fabric tensile strength *Shahpurwala, Schwartz* 26
for determining short fiber content in cotton: relationship with HVI fiber length uniformity *Ramey, Beaton* .. 101
multicollinearity between HVI fiber properties: diagnostic procedures for *El Mogahzy, Broughton* 440
regression analysis: single stage preparatory process for cotton fabrics: more comments on paper *Pal* 553
subjective evaluation of fabric handle: measuring and interpreting low-stress wool fabric mechanical and surface properties: men's suiting materials *Mahar, Postle* .. 721
Stress-Strain
effect on ultra-high strength polyethylene fibers: effects of strain rate and gauge length on failure: comments on paper *Andersson* 555
Surfactants
fluorescent surfactants: substantivity of various anionic surfactants applied to wool *Holt, Onorato* 653
Tensile Properties
of anionic modified PET: effects of heat setting on tensile and dye sorption characteristics: comparison with normal PET *Pal, Mehta, Gandhi* 734
of acrylic/viscose rayon blends: influence of extension rate and specimen length on tenacity and breaking extension of rotor spun yarns *Kaushik, Salhotra, Tyagi* 97
of air-jet textured yarns: characterization of structural integrity by repeated load testing on the Instron *Sengupta, Kothari, Alagirusamy* 758
of small diameter aramid braids: effect of salt water immersion on ultimate tensile strength *Sampathkumar, Schwartz* 94
of woven fabric: modeling tensile strength using statistical bundle theory *Shahpurwala, Schwartz* 26
Textile Processes
design of finishing processes: discrete-event simulation *Livingston, Sommerfeld* 589
Texturing
air-jet textured yarns: characterization of the structural integrity of repeated load testing *Sengupta, Kothari, Alagirusamy* 758
air-jet textured yarns: simplified instability measurement devices for *Demir* 492
air-jet texturing of composite yarns: cotton-filament yarns for better thermal comfort and handle *Kothari, Sengupta, Srinivasan, Goswami* 292
air textured yarns: influence of interfilament friction on structure and properties *Kothari, Sengupta, Rengasamy, Goswami* 317
high speed texturing: friction and slip in textile processes: comments on a paper *Hearle* 769
measuring wear in carpets: use of image analysis: requirements for lighting and camera focusing *Wood, Hodgson* 1
Thermal Analysis
hot calender bonding of polypropylene fibers: analysis of mechanical properties at the bond perimeter *Warner* 151
of the wool keratin composite: viscoelastic analysis of thermal and hygral expansion *Tao, Postle* 300
Thermal Properties
of irradiated nylon 6 fibers: high energy radiation effects on density *Ellison, Zeronian, Xie* 657
Twist
effect on rotor spinning of fine cotton yarns: other factors affecting *Steadman, Gipson, Mehta, Soliman* 371
effect on spirality of knitted fabrics: nature of spirality: offset by selection of yarn twist *de Araujo, Smith* ... 247
high twist ring spun cotton yarns: model to estimate breaking elongation of: derivation of model for yarns from single cotton varieties *Aggarwal* 691
high twist ring spun yarns: mode to estimate breaking elongation of: applicability to yarns from mixtures of cottons *Aggarwal* 717
of double-rove spun yarns: produced on short staple spinning system: effect of processing parameters on properties *Subramaniam, Srinivasamoorthi, Peer Mohamed* 762
wrapping twist in staple yarns: theoretical study in single jet false twist spinning *Krause, Soliman* 546
Ultrasonics
effects of ultrasound on dyeing of nylon 6: increased dye uptakes *Shimizu, Yamamoto, Shimizu* 684

Upholstery Fabrics
actual wear versus laboratory abrasion: effects on soiled fabrics *Warfield, Slaten* 201

Viscosity
of PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation and properties: effect of copolymer intrinsic viscosity *Mikołajczyk, Krucińska* 536
of PAN carbon fiber precursor: correlation between copolymer characteristics and fiber formation and properties: effect of intrinsic viscosity of acrylonitrile-methyl methacrylate *Mikołajczyk, Krucińska, Kamecka-Jędrzejczak* 557

Water Vapor
heat of sorption of: perception by human subjects in wearer trials *Stuart, Schneider, Turner* 324
Wear
attrition of cotton fabrics: fabric-to-fabric abrasion *Lamb, Kepka, Miller* 61
Weaving
loom shedding cam design: pressure angle in: comments on paper *Neogi* 770
of sized cotton yarns: studies of abrasion before and after weaving *Friedman, Miller, Kepka* 622
of Sirospun wool yarns: effect of lubrication on tensile, frictional, and weaving properties *Brooks, Das, Smith* 382
performance of sized cotton yarns: high pressure squeezing in sizing *Hari, Behera, Prakash, Dhawan* 597
theoretical investigations of beat-up: factors influencing movement of filling yarn *Zhang, Mohamed* 395
weave room of the future: team approach to operations: simulation study *Jayaraman, Malhotra* 237
weave room of the future: monitored data for real-time resource allocation *Jayaraman, Malhotra* 271
Wetting
effect on shear behavior of wool: also effect of finishing *Kothari, Tandon* 142
Whitening
bleaching of wool with hydrogen peroxide: effect of urea under alkaline and acidic conditions *Arifoglu, Marmer, Carr* 425
low temperature preparatory process for cotton fabrics: persulfate activated hydrogen peroxide *Sarma, Mittal, Narasimham* 748
Wool Fabrics
abrasion resistance of: change in surface properties during wear *Amirbayat, Cooke* 469
as measured on the KES-F system: error analysis of measurements for deformation on wool, polyester, and their blends *Ly* 17
bleaching with hydrogen peroxide: effect of urea under alkaline and acidic conditions *Arifoglu, Marmer, Carr* 425
handle of: effect of solvent treatments on: measurements on the KES-F system of men's winter suiting materials *Carr, Weedall* 45
heat of sorption of wool: perception by human subjects in wearer trials *Stuart, Schneider, Turner* 324
Hercosett/anionic surfactant dispersion shrinkproofing: physicochemical behavior of the resin on untreated wool *de la Maza, Parra, Sánchez Leal, Commelles* 173
low-stress mechanical and surface properties: application to finishing, drycleaning, and photodegradation *Dhingra, Liu, Postle* 357
low-stress mechanical and surface properties: optimization of properties for men's suiting materials *Postle, Dhingra* 448
low-stress mechanical and surface properties: subjective evaluation of fabric handle *Mahar, Postle* 721
shear behavior of: effect of finishing and wetting *Kothari, Tandon* 142
shrinkproofing of: physicochemical properties of Hercosett/optical brightener agent dispersions applied to untreated wool *de la Maza, Parra, Sánchez Leal, Commelles* 687
single thread shrinkage in: shrink-resist polymer treatments that cause uneven shrinkage *Guise, Freeland* 700
Wool Fibers
anionic surfactants applied to: substantivity of fluorescent surfactants *Holt, Onorato* 653
blends with angora rabbit hair: quantitative fiber mixture analysis by SEM: analysis for systematic errors *Wortmann, Wortmann, Arns* 73
copper(II)-wool keratin complex: degradation by hydrogen peroxide *Fukatsu* 405
cuticular scale measurements of: image analysis techniques for determining Chinese cashmere and various wools *Robson, Weedall, Harwood* 713
intercellular and membrane lipids of: analysis also of cashmere, angora, mohair, other animal fibers, and human hair *Logan, Rivett, Tucker, Hudson* 109
keratin composite: viscoelastic analysis of longitudinal and transverse mechanical properties *Tao, Postle* 123
keratin composite: viscoelastic analysis of thermal and hygral expansion *Tao, Postle* 300
low temperature plasma treatments of: free radicals in: also cotton, silk, nylon 6, rayon, and PET *Wakida, Takeda, Tanaka, Takagishi* 49
morphological changes in: following solvent extraction and treatments in hot aqueous solutions *Mansour, Jones* 530
penetration of reducing agents: method for determining with fluorescence microscopy *Evans* 569
pyrolysis gas chromatography of: detection and quantitation of tryptophan in wool and simple proteins *Marmer, Magidman, Farrell* 616
rapid ninhydrin test method for: expanding use to examine hydrolysis in wet treatments, bleaching, and light and heat exposure *Wang, Pailthorpe* 671
Sirospun wool yarns: effect of lubrication on tensile, frictional and weaving properties *Brooks, Das, Smith* 382
sorption of Synthappret BAP: effect on abrasion resistance: SEM studies *Cook, Fleischfresser, Leeder, Rippon* .. 754
water-impenetrable component of α-keratin: α-helical ropes present in the α-keratin structure *Feughelman* 739
wool hydrolysis in conventional carbonizing: damage occurring mostly in baking process *Wang, Pailthorpe* 232
Wool, Raw
proteinaceous contaminants in scoured wool and top: characterization of: comparison of brightness *Elling, Zahn* 460

X-Ray Diffraction
of monoazo disperse dyes: 2-nitro and 2-cyano derivatives of 4'-[*N*,*N*-bis(β-hydroxyethyl)amino]azobenzene *McIntosh, Freeman, Singh* 389

Yarn Geometry
structural geometry of air textured yarns: influence of interfilament friction on structure and propeties *Kothari, Sengupta, Rengasamy, Goswami* 317